

IN THE CLAIMS

Claims 1-23 and 38-58. (Canceled)

24. (Original) A guidewire comprising:
an elongated core member having a proximal section and a distal section with a plurality of radiopaque markers disposed thereon at regular intervals in axial position and a longitudinal portion which tapers distally to a reduced transverse dimension;
a flexible body member disposed about the distal section of the elongate core member; and
a polymer layer disposed about at least a portion of the distal section of the elongate core member and the flexible body member.
25. (Original) The guidewire of claim 24 wherein the polymer layer is selected from a group consisting of polyurethanes, polyamide, copolymers of polyurethane and copolymers of polyamide.
26. (Original) The guidewire of claim 24 wherein the polymer layer has a substantially constant outer diameter.
27. (Original) The guidewire of claim 24 wherein the longitudinal portion has a substantially linear change in stiffness with respect to a change in axial position.
28. (Original) The guidewire of claim 24 wherein the longitudinal portion has a length of about 5 to about 25 cm.
29. (Original) The guidewire of claim 24 wherein the longitudinal portion has a curvilinear taper over a length thereof.
30. (Original) The guidewire of claim 24 wherein the radiopaque markers are made of a radiopaque metal secured to the distal section of the elongate core member.

31. (Original) The guidewire of claim 30 wherein the radiopaque metal for the radiopaque markers is selected from the group consisting of gold, platinum, platinum-iridium, tantalum and tungsten.

32. (Original) The guidewire of claim 24 wherein the markers are made of a radiopaque matrix applied to the distal section of the elongate core member.

33. (Original) The guidewire of claim 32 wherein the radiopaque matrix comprises a radiolucent polymer doped with a radiopaque material.

34. (Original) The guidewire of claim 32 wherein the radiopaque matrix comprises an ink doped with a radiopaque material.

35. (Original) The guidewire of claim 32 wherein the radiopaque matrix comprises an adhesive doped with a radiopaque material.

36. (Original) The guidewire of claim 33 wherein the radiolucent polymer comprises polyurethane.

37. (Original) The guidewire of claim 33 wherein the radiopaque material comprises tungsten powder.

59. (Original) A guidewire comprising:
an elongate core member having a proximal section and a distal 20 section with a longitudinal portion which tapers distally to a reduced transverse dimension; and
a tubular polymer member disposed about the distal section of the elongate core member having a plurality of longitudinal segments with at least one of the longitudinal segments being radiopaque and at least one of the segments being radiolucent.

60. (Original) The guidewire of claim 59 wherein the longitudinal portion has a curvilinear taper.

61. (Original) The guidewire of claim 59 wherein the longitudinal portion has a length of about 10 to about 25 cm.

62. (Original) The guidewire of claim 59 wherein the a longitudinal portion is configured to have a linear change in stiffness in an axial direction.

63. (Original) The guidewire of claim 59 further comprising a polymer layer disposed about the distal section of the elongate core member.

64. (Original) The guidewire of claim 63 wherein the polymer layer is selected from a group consisting of polyurethanes, polyamide, copolymers of polyurethane and copolymers of polyamide.

65. (Original) A guidewire comprising:
an elongate core member having a proximal section and a distal section with a longitudinal portion which tapers distally to a reduced transverse dimension; and
a flexible body disposed about the distal section of the core member comprising a polymer layer disposed about a radiopaque layer.

66. (Original) The guidewire of claim 65 wherein the flexible body disposed about the distal section of the core member comprises a first polymer layer disposed about the distal section, a radiopaque layer disposed about the first polymer layer and a second polymer layer disposed about the radiopaque layer.

67. (Original) The guidewire of claim 65 wherein said radiopaque layer is continuous in an axial direction.

68. (Original) The guidewire of claim 67 wherein the radiopaque layer is shorter in an axial direction than the flexible body.

69. (Original) The guidewire of claim 65 wherein the radiopaque layer is intermittent in an axial direction.

70. (Original) The guidewire of claim 65 wherein the radiopaque layer is comprised of a radiopaque helical ribbon coil in an axial direction.

71. (Original) The guidewire of claim 70 wherein the radiopaque helical ribbon coil material is about 0.0005 to about 0.0040 inch in thickness.

72. (Original) The guidewire of claim 70 wherein the radiopaque helical ribbon coil material is about 0.5 to 2 mm in width and the turns of the radiopaque helical ribbon coil are about 1 to about 15 mm apart.

73. (Original) The guidewire of claim 65 wherein the polymer layer is comprised of a material selected from a group consisting of polyurethanes, polyamide, copolymers of polyurethane and copolymers of polyamide.

74. (Original) The guidewire of claim 65 wherein the radiopaque layer is comprised of a material selected from a group consisting of platinum, gold, iridium, palladium, tantalum, tungsten, and radiopaque alloys thereof.

75. (Original) The guidewire of claim 65 wherein the radiopaque layer is non-metallic.

76. (Original) The guidewire of claim 65 wherein the radiopaque layer comprises a polymer doped with a radiopaque material.

77. (Original) The guidewire of claim 65 wherein the polymer layer is about 0.0005 inch to about 0.0060 inch in thickness.

78. (Original) The guidewire of claim 77 wherein the polymer layer is about 0.0010 inch to about 0.0030 inch in thickness.

79. (Original) The guidewire of claim 65 wherein the radiopaque layer is about 0.0005 inch to about 0.0040 inch in thickness.

80. (Original) The guidewire of claim 79 wherein the radiopaque layer is about 0.0015 inch to about 0.0025 inch in thickness.

81. (Original) The guidewire of claim 69 wherein the intermittent radiopaque layer is comprised of radiopaque bands spaced apart a predetermined axial distance.

82. (Original) The guidewire of claim 81 wherein the radiopaque bands are spaced from about 0.2 to about 2 cm apart in an axial direction.

83. (Original) The guidewire of claim 81 wherein the radiopaque bands are spaced about 0.8 to about 1.2 cm apart in an axial direction.

84. (Original) The guidewire of claim 81 wherein the radiopaque bands are about 0.5 to about 5 mm in width.

85. (Original) The guidewire of claim 81 wherein the bands are about 1 to 2 mm in width.